

*NASA's Strategic
Human Capital
Implementation Plan*

SECTION 1.0 INTRODUCTION

The NASA Strategic Human Capital Plan (SHCP) establishes a systematic, Agencywide approach to human capital management, aligned with the Agency's vision and mission. The Plan is based on an architecture consisting of five human capital pillars, and their associated goals, and strategies and addresses them in the context of an assessment of NASA's current state with respect to human capital management – leading to summary goal statements, problems, improvement initiatives, and intended outcomes. They serve as a roadmap that, when followed, will strengthen the Agency in the areas where current activities do not exist or where significant improvement is warranted. The detailed goals and strategies for the five pillars are contained in Section 2, Table 1, of this Strategic Human Capital Implementation Plan (SHCIP). The table was developed through a coordinated effort of an Agency team of senior managers that evaluated the Agency's current posture, the desired future posture, and the vision and mission of the Agency. The resultant goals and strategies described to achieve the desired future state were used to derive the improvement initiatives summarized in Section 3 and detailed in Section 4.

NASA has already taken many steps to address the workforce issues that have arisen due to downsizing and skills imbalances, projected retirements, and the potential shrinking pipeline of future talent. Examples of existing initiatives and activities addressing workforce issues are included in Appendix A. Appendix B contains a menu of possible tools and legislative reforms to enhance management flexibility; to correct skills imbalances; and to enhance the recruitment, retention, and reshaping of a highly skilled diverse workforce. In addition, the Agency is actively involved in the identification and elimination, where feasible, of barriers to our human capital management effort via the Freedom-to-Manage activity of NASA and the Administration.

This SHCIP addresses the high leverage improvement initiatives NASA has identified and will pursue to improve the Agency's human capital management. These improvement initiatives and related issues are further described in specific high level Action plans (Section 4). Although these initiatives are not the only activities being carried out by the Agency with respect to human capital, they are the important new improvement initiatives the Agency has determined are required for mission success.

Section 5 of this SHCIP outlines the critical high-level metrics required to monitor progress and manage the results of the new initiatives. They will also be used by NASA leadership, where necessary, to stimulate analysis to determine root causes of problems that the metrics might indicate. They enable the Agency to identify areas for improvement while not overburdening the resources required for high-quality measurement and assessment to occur.

As stated in the SHCP, effective implementation and integration of the NASA Strategic Human Capital Plan into the Agency's day-to-day operations requires the commitment of the entire NASA organization. Agency and Center senior management must demonstrate their commitment to achievement of the Plan's goals. They manage the Agency

workforce on a day-to-day basis and must be accountable for managing this critical resource efficiently and effectively. The Roles and Responsibilities Table from the SHCP is reproduced below:

Roles and Responsibilities

Agency and Center Senior Management	<ul style="list-style-type: none"> ▪ Committing to an integrated, Agencywide approach to human capital management ▪ Clearly communicating commitment and support for implementation ▪ Holding managers accountable for results
Headquarters Office of Human Resources and Education and Center Human Resources Offices	<ul style="list-style-type: none"> ▪ Providing timely workforce planning and analysis ▪ Periodically assessing internal and external factors that may affect the Agency's ability to obtain and retain a highly skilled, productive workforce ▪ Participating early in program planning and implementation with respect to resource requirements ▪ Developing human capital programs, practices, and tools that support the Agency's ability to achieve mission success, with input from Enterprises and Centers ▪ Assessing and reporting Agency and Center progress in human capital management ▪ Identifying impediments to and opportunities for improvement in management of human capital
Enterprises and Centers	<ul style="list-style-type: none"> ▪ Participating in the development and implementation of the SHCP improvement initiatives ▪ Incorporating human capital considerations in Enterprise Strategic Plans and Center Implementation Plans ▪ Assuring that individual Center and Enterprise human capital strategies are aligned with the Agency Strategic Human Capital architecture ▪ Making effective use of human capital-related data, programs, practices, and tools ▪ Providing data to support human capital-related metrics ▪ Identifying impediments to and opportunities for improvement in management of human capital ▪ Producing the desired human capital results
Headquarters Functional Offices	<ul style="list-style-type: none"> ▪ Identifying/making recommendations on human capital issues effecting functional support to Agency mission

SECTION 2.0 NASA’S HUMAN CAPITAL PILLARS, GOALS, AND STRATEGIES

Table 1. NASA’S Strategic Human Capital Plan Pillars, Goals, and Strategies

PILLAR	GOAL	STRATEGIES
1.0 STRATEGIC ALIGNMENT NASA aligns human capital to support the vision and accomplish the Agency’s mission and goals.	1.1 The Agency is well structured organizationally and matches its workforce and workload to support its mission in a safe, effective and efficient way.	1.1.1. Verify a clear linkage between the Human Capital strategies of the Agency and the mission, vision and goals as stated in the NASA Strategic Plan.
		1.1.2. Assure clarity of key goals, measure progress toward their achievement, and periodically assess the effectiveness of the organizational structure in achieving the goals.
		1.1.3. Leverage organizational capabilities through efficient and effective use of civil servants, contractors, grantees, and other non-Agency resources.
	1.2. Employees understand how what they do and how they do them support overall Agency goals.	1.2.1. Use the performance management system to clearly assign to the leaders of specific organizations, and hold them accountable for, the activities and functions required to achieve NASA’s objectives.
		1.2.2. Assure all employees understand how their assignments contribute to achievement of the Agency goals.
		1.2.3. Effectively, fairly, and equitably use performance management to enable employees to understand their role in achieving Agency goals, individual performance, desired improvements and hold them accountable.
	1.3 Human Resources (HR) activities clearly, effectively and efficiently support and enable the Agency’s mission.	1.3.1. Assure alignment of human resources activities to contribute – through specific achievement of excellence in the five pillars – to achievement of the Agency’s key goals.
		1.3.2. HR policies and processes enable the Agency to effectively and efficiently manage its workforce.
		1.3.3. Human resource management professionals partner with Agency top management in developing strategic and program plans.
2.0 STRATEGIC COMPETENCIES NASA recruits, acquires, and retains a diverse workforce with world-class capabilities in strategic competencies needed for all components of its mission.	2.1 The Agency knows the competencies it needs and the workforce is concentrated in those competencies.	2.1.1. Develop, utilize and periodically update an integrated workforce planning and analysis process, and associated information technologies, including competencies required to achieve NASA goals, and allow an Agency-level view as they relate to projected programs.
		2.1.2. Conduct periodic competency gaps assessment and use results to target recruitment and development activities.
	2.2 NASA recruits, acquires, and retains world-class employees in the essential competencies.	2.2.1. Utilize NASA’s exciting and fulfilling work to attract and retain employees with essential competencies.
		2.2.2. Provide the workforce with sufficient resources to succeed in their assignments.
		2.2.3. Facilitate leadership strategies that support NASA’s values.

3.0 LEARNING NASA promotes a knowledge-sharing culture and a climate of openness, continuous learning and improvement.	3.1 NASA has a climate of open sharing of relevant knowledge to facilitate best practices, promote personal and professional growth, and avoid failures.	3.1.1. Strategically invest in training and development opportunities, including coaching and mentoring, and foster a climate of continuous learning and improvement.
	3.2 NASA actively collects, shares, and utilizes best practices from its successes and lessons learned from its failures.	3.2.1. Stimulate and encourage the capture and exchange of knowledge within the Agency.
		3.2.2. Provide a process for enabling the collection, sharing, and utilization of best practices from failures and successes.
4.0 PERFORMANCE CULTURE NASA creates a culture that focuses on results, motivates employees to perform, and ensures fairness in the workplace.	4.1 NASA fosters an inclusive climate where employees are valued, treated fairly and with respect, and they feel empowered to make meaningful, relevant, and fulfilling contributions.	4.1.1. Assure Agency's human capital programs and processes create an inclusive climate where employees are treated fairly, respected by management and their peers, and are valued for their meaningful and fulfilling contributions.
	4.2 Equal opportunity and diversity are utilized and valued for their contribution to the Agency mission.	4.2.1. Enhance, fully utilize and hold management accountable for maintaining an inclusive workforce and fostering an inclusive environment. 4.2.2. Promote employee education and training of equal opportunity and diversity to strengthen the Agency's appreciation of the value added of a diverse and inclusive workforce.
	4.3 The NASA rewards and recognition system acknowledges high-level performance and encourages the behaviors the Agency desires in individuals and groups.	4.3.1. Assure linkage of employee and managerial rewards, recognition, development and performance to Agency key goals.
5.0 LEADERSHIP NASA ensures it has leaders who are adaptable; who inspire, motivate, and guide others towards goals; who mentor and challenge the workforce; and who demonstrate high standards of honesty, integrity, trust, openness, and respect.	5.1 NASA recruits, selects, hires, and retains a diverse, high performing cadre of leaders who are nurtured through training and development opportunities.	5.1.1. Assure that the Agency senior management is involved in the process of recruiting a diverse cadre of high performing leaders.
		5.1.2. Provide mentoring, training, development and coaching opportunities to equip employees to assume leadership positions within the Agency.
		5.1.3. Establish methods and processes for leadership continuity.
		5.1.4. Assure that developmental opportunities improve supervisory effectiveness in managing and developing employees.
	5.2 Leaders are held accountable for overall performance, at the individual and organizational levels, in maintaining high standards of honesty, integrity, safety and equal opportunity principles.	5.2.1. Hold leaders accountable for consistently applying management practices aligned with NASA's values.
		5.2.2. Hold leaders accountable for performance at the organization as well as the individual level, including civil service workforce actions and associated costs.
		5.2.3. Ensure that the value and spirit of equal opportunity and diversity are an integral part of leader evaluation and management expectations.
		5.2.4. Create a climate where ethical and moral behavior is understood and followed.

SECTION 3.0 IMPROVEMENT INITIATIVE IDENTIFICATION AND RATIONALE

The key improvement initiatives that resulted from the assessment of the Agency's current state of human capital management versus where NASA believes it should be are discussed in the SHCP and in connection with the project plans in Section 4. They represent focus areas that merit special emphasis and where expenditure of resources can be expected to yield the greatest benefit. Together, their implementation will greatly enhance the Agency's ability to effectively manage its human capital and maintain its preeminence as a world-class organization with a highly motivated, skilled, productive, and innovative workforce. The following table outlines in summary form the pillar, goal, problem, improvement initiative and the outcomes and results to be realized.

PILLAR	GOAL SUMMARY	PROBLEM	IMPROVEMENT INITIATIVE	OUTCOMES/RESULTS
<u>STRATEGIC ALIGNMENT</u>	The Agency is organized to support its mission in a safe, effective and efficient way. Each organization understands its contribution to the Agency mission and each employee understands his or her personal contribution.	<ul style="list-style-type: none"> Fail to achieve “One NASA” due to ambiguity in roles and responsibilities or stovepipe behaviors Smaller workforce – not deployed most effectively Inadequate ability to track/forecast human capital across programs 	<p><i>Develop and implement an Agencywide integrated workforce planning and analysis capability.(See Action Plan 1)</i></p> <p><i>Increase the utilization of flexibilities and tools to ensure a highly skilled, diverse and productive workforce.(See Action Plan 2).</i></p>	<ul style="list-style-type: none"> “One NASA” with integrated capabilities to support NASA missions Better deployed workforce and enhanced mission performance Increased ability to attract and keep highly skilled diverse workforce.
<u>STRATEGIC COMPETENCIES</u>	NASA understands the competencies required for safe and successful missions and recruits, acquires and retains a world-class workforce representative of the Nation’s diversity and consistent with competency needs.	<ul style="list-style-type: none"> Inadequate ability to identify imbalances in current and projected workforce arising from changing priorities and turnover A shrinking national pipeline of talent needed for the future 	<p><i>Develop an Agency competency management system that defines competencies the Agency must retain and those for which it will rely on industry, academia and others.(See Action Plan 3)</i></p> <p><i>Ensure that NASA education programs match a diverse population of students with projected NASA workforce needs.(See Action Plan 4)</i></p>	<ul style="list-style-type: none"> Agency has skills it needs Contribute to ensuring a source of competencies needed to assure future mission success
<u>LEARNING</u>	NASA assures mission success by using existing knowledge effectively and acquiring new knowledge through learning.	<ul style="list-style-type: none"> Fail to capitalize on – and “institutionalize” – lessons learned from failures and successes Insufficient attention paid to mentoring 	<p><i>Ensure training and development programs build needed competencies, including more effective incorporation of knowledge sharing and mentoring in the development of employees(See Action Plan 5).</i></p> <p><i>Capture knowledge and lessons learned (from failures and successes) in a more effective, systematic way(See Action Plan 6).</i></p>	<ul style="list-style-type: none"> Better performance through a more knowledgeable, more highly skilled workforce Higher mission success rate
<u>PERFORMANCE CULTURE</u>	NASA achieves excellence by valuing and recognizing performance in an environment in which all employees feel encouraged to contribute.	<ul style="list-style-type: none"> Performance expectations ambiguous (e.g., accountability, effort v. results) Fail to deal adequately with poor performance 	<p><i>Assure the Agencywide performance management system focuses on accountability for results.(See Action Plan 7)</i></p> <p><i>Assure that employee rewards and recognition programs are adequately linked to performance that contributes to achievement of Agency goals.(See Action Plan 7)</i></p>	<ul style="list-style-type: none"> Improved personal and organizational performance Enhanced mission success through more effective use of the diverse talents/abilities of the workforce
<u>LEADERSHIP</u>	NASA has leaders who think strategically, inspire employees and achieve results	<ul style="list-style-type: none"> Lack of an integrated, strategic approach to leadership development Do not fully benefit from insights/experience of existing leaders when developing future leaders 	<p><i>Ensure that an integrated, strategic training and development program builds needed Agency leadership competencies.(See Action Plan 8)</i></p>	<ul style="list-style-type: none"> Agency has right kind and number of diverse leaders to achieve mission success Effective process to develop leaders for future NASA leadership roles/responsibilities

SECTION 4.0 STRATEGIC HUMAN CAPITAL MANAGEMENT IMPROVEMENT INITIATIVE ACTION PLANS

As stated in the Introduction, the Agency has already undertaken a number of actions to respond to workforce issues. The NASA Centers have also been proactive in addressing workforce concerns at the local level. Many of these activities are things the Agency should continue to do at about the same – or *sustaining* – level. Others fall into the category of existing activities for which incremental *enhancements* are appropriate. This Section, however, deals with the key improvement initiatives, which are outlined in the following action plans. The action plans are intended to provide high-level guidance to the offices of primary responsibility to enable them to develop more detailed project plans as appropriate.

The action plans specify high-level milestones, both near-term and long-term, schedule dates, and metrics where appropriate. It should be noted that the metrics in the action plans are project-level and merely reflect progress on individual activities. The overall effectiveness of the implementation of the initiatives, together with ongoing NASA human capital management activities, is addressed via the critical metrics in Section 5.

The next phase of implementation for each initiative will require:

1. Assignment of accountability for each action plan
2. A more complete examination of the current state of the Agency with respect to the initiative
3. Development of project plans and resource requirements as appropriate
4. Development of functional- and management-level metrics

Pillar: Strategic Alignment

Action Plan 1: Develop and implement an Agencywide integrated workforce planning and analysis capability.

Short-term and long-term human capital issues associated with planning and acquisition of human resources are identified in a number of internal (SRR, NIAT) and external (OMB, OPM) reviews. NASA's critical workforce competencies are not permanent or static, but are a portfolio of skills that changes over time as NASA's needs change, with new competencies coming in and competencies no longer needed transitioning out. This action plan addresses these issues.

Activities	Schedule	Metrics
Develop guidance for the combined workforce inventory. <ul style="list-style-type: none"> Develop correlation of activity/function codes and competencies and guidance for application. Develop additional NASA-specific guidance for distinguishing inherently governmental and commercial Full-Time Equivalents (FTE) 	Feb 2002	Guidance developed, provided, and clarified as required in a timely manner. Milestone completed.
Conduct Federal Activities Inventory Reform (FAIR)-SRR inventory at Centers.	June 2002	Milestone completed.
Work out data discrepancies with Institutional Program Offices, Centers and Functional Offices. Submit FAIR inventory to OMB.	June 30, 2002	IPO, Center, and functional office review and submission to OMB completed.
Define the critical workforce competencies NASA needs to execute its approved programs over the next ten years – including permanent and non-permanent civil servants, and contracted workforce in industry and academia.		IPO, Center and Functional Office review of definitions and identification of critical competencies required now and in the next ten years is completed.
Analyze integrated data and formulate human capital management and competitive sourcing strategy for the FY 2004 budget submission to OMB in September 2002.	August 2002	Strategy development and submission to OMB completed.
*Update and integrate the existing SRR workforce competency database.	September 30, 2002	Workforce Competency Database update completed.
Integrate Competency Management System into Workforce Planning and Analysis Capability.	September 2003	Integration and first analysis completed.
Implement workforce planning and analysis capability of Integrated Financial Management Program.	September 2005	Prototype workforce planning, reporting and analysis system delivered. Initial analysis and integration complete.

Outcomes/Results:

Greatly improve the understanding and management of NASA's workforce.

Enhance ability to:

- Identify imbalances in current workforce
- Identify future “on-board” projections vis a vis what will be needed in the future (oversupply/undersupply of key skills)
- Identify the limited number of truly critical civil servant personnel needed for those competencies that NASA must retain in-house as well as those needed to oversee competencies supplied through academia, industry or other organizations.
- Identify and plan out the reforms needed to enable the competitive sourcing of those competencies that can or could be supplied through academia, industry or other organizations, including a schedule for each reform and an estimated range of the number of civil servant positions that could be affected each year (to be outlined in the NASA Competitive Sourcing Plan).

In addition:

- Agency human capital strategy will be comprehensively aligned with mission, goals, and organizational objectives: 1) integrated into Budget and Strategic Plans; 2) be consistent with OPM's human capital balanced scorecard (issued December 1, 2001); and 3) comply with standards for internal accountability systems to ensure effective merit-based Human Resource Management.

Ultimately, the successful implementation of this plan will enable the achievement of “One NASA”-integrated capabilities to successfully support NASA missions.

* *Indicates an item contained in the Human Capital section of the NASA PMA Action Plan, dated May 9, 2002, negotiated with OMB and OPM.*

Pillar: Strategic Alignment

Action Plan 2: Increase the utilization of flexibilities and tools to ensure a highly skilled, diverse and productive workforce.

NASA must improve its agility as an organization in order to adapt to the changing needs of the future. This can be done with more institutional flexibility, more flexibility in shaping the workforce, and more flexibility within the workforce itself at the individual employee level.

Activities	Schedule	Metrics
*NASA will continue to incorporate human resources tools and strategies that support major Agency transformation implementation plans-including competitive sourcing goals and legislative proposals-as necessary, to facilitate reforms.	On-going	Human resources authorities are delegated to line and other management to the maximum extent possible, in line with Freedom-to-Manage guidelines.
*Identify new authorities that could improve the recruitment, retention, competency and flexibility of NASA's civil servant workforce. These authorities could include: excepted service and distinguished scholar hiring authorities, scholarship for service, expanded use of term appointments and Intergovernmental Personnel Assignments (IPAs), simplified candidate evaluation, pay broad-banding, critical pay authority, and industry and academic exchange programs. (A menu of options will be attached to the Strategic Human Capital Plan).	On-going	Required authorities granted.
*Identify positions requiring critical position pay authority.	June 3, 2002	Positions identified.
*Identify critical positions where incentives are required.	September 2002	Appropriate regulatory/legislative packages to deal with other HR barriers are developed/advocated.
*Roll out an automated classification system within the Integrated Financial Management Program.	September 2002	Improve position management and facilitate more timely recruitment and staffing actions.
*Provide Enterprise/Centers mechanisms and incentives for hiring non-permanent employees.	October 2002	Mechanisms Provided.
*Establish key strategic skill area targets to shape recruitment of college hires for the summer of 2003.	November 30, 2002	Milestone Completed.
*Identify new authorities necessary to implement the reforms contained in NASA's Competitive Sourcing Plan. These authorities could include (but proposals are not limited to): benefits portability, extended buyout authority, retraining expenses for involuntarily separated employees, and waiver of reduction of annuity when reemploying civil servants (a menu of options attached as Appendix B to this Strategic Human Capital Implementation Plan).	On-going	Authorities Identified.

*Delegate NASA Excepted (NEX) authority to Centers.	June 2002	Milestone completed
*Fully implement an automated application and hiring processing system.	September 2002	Recruitment efforts are effective; over 90% of selections are made from an initial referral certificate. Over 90% of the time, managers are provided a reasonable number of well-qualified diverse candidates for selection consideration.
*Verify that delegation of NEX authority to the Centers has resulted in increased use of this flexibility.	June 2003	
*Assess management satisfaction with an automated application and hiring processing system.	September 2003	
*Implement new positions subject to critical position pay authority.	October 2003	
*Implement an enhanced Agencywide strategy to recruit and retain critical competencies. (National Recruitment Initiative)	September 2003	
*Develop a strategy – tied to information from NASA capabilities in strategic management of human capital – that will enable the identification of the appropriate mix, over time, between permanent and non-permanent civil servants.	September 2003	
*Identify strategically derived goals for permanent/non-permanent mix, and implement a plan for achieving those goals.	September 2003	
Ensure that mechanisms and incentives are available for achieving the appropriate mix of non-permanent civil servants and IPAs (e.g. terms, temps, NEX, IPAs, etc.).	September 2003	

Outcomes/Results:

- Agency will 1) sustain a high-performing workforce that is continually improving in productivity; 2) strategically use existing personnel flexibilities, tools, and technology; and 3) implement effective short and long-term plans leading to mission success.
- Agency will focus use of human resources flexibilities to address areas of concern to achieve optimum alignment between the workforce and the mission.

* Indicates an item contained in the *Human Capital section of the NASA PMA Action Plan, dated May 9, 2002, negotiated with OMB and OPM.*

Pillar: Strategic Competencies

Action Plan 3: Develop an Agency competency management system (CMS) that defines competencies the Agency must retain and those for which it will rely on industry, academia and others.

NASA's true core competencies are the knowledge, skills, and abilities that NASA utilizes, develops, and obtains in order to provide the capabilities, products and services desired by its internal and external stakeholders. These critical workforce competencies are not permanent or static but are a portfolio of skills that change over time as NASA's needs change – with new competencies needed and others less in demand, or eventually not required. This transition occurs not only at the organization level but applies as well to individuals and their associated portfolios of skills and competencies. The Agency currently has an inadequate ability to identify imbalances in current and projected workforce needs arising from changes. This action plan will enable the Agency to perform a baseline assessment, determine what we need in the future and facilitate decision-making with respect to how to balance the competencies we have today.

Activities	Schedule	Metrics
*Complete competency pilot at Kennedy Space Center (KSC).	June 30, 2002	Pilot complete and lessons learned captured and disseminated.
*Develop an Agencywide competency dictionary.	July 30, 2002	Dictionary completed.
*Identify critical competencies across the Agency; those at risk, and potential skill mix adjustments between Centers.	November 30, 2002.	NASA knows what its strategic competencies and gaps are, by Sep 03.
*Complete rollout of KSC competency model Agencywide and resolve gaps and surplus competencies in mission critical occupations (utilizing human capital tools, flexibilities, the Agency Competitive Sourcing Plan, etc.).	September 30, 2003	NASA CMS utilized by management to make decisions on hiring, reassignment, training and development, competitive sourcing (Check off, Management survey, OMB, OPM scorecards).
Identify imbalances in current and projected workforce of today, relative to what is needed for the future (oversupply/undersupply of key skills).		
Integrate CMS into Agency-level Workforce planning and analysis tool.	September 30, 2003	100% of NASA critical competencies are defined.

NASA CMS content integrated in Integrated Financial Management Program/Core Human Resources.	September, 30, 2005	Less than 10% of current year gaps remain after first year of system use (Improvement measure, CMS provided).
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Outcomes/Results:

Agency will be better able to:

- Define the critical workforce competencies NASA needs to execute its approved programs over the next ten years – including permanent and non-permanent civil servants, and contracted workforce in industry and academia.
- Track, project, and analyze critical workforce competencies that enable strategic management.
- Identify those workforce competencies that can or could be supplied through academia, industry or other organizations and those competencies that can only be met through a civil servant workforce.
- Identify the limited number of truly critical civil servant personnel needed for those competencies that NASA must retain in-house as well as those needed to oversee competencies supplied through academia, industry or other organizations.
- Eliminate skill gaps/deficiencies in mission critical occupations.

* Indicates an item contained in the Human Capital section of the NASA PMA Action Plan, dated May 9, 2002, negotiated OMB and OPM.

Pillar: Strategic Competencies

Action Plan 4: Ensure that NASA education programs match a diverse population of students with projected NASA workforce needs.

As stated in Appendix B to the SHCP (NASA's Human Capital Challenge), there are major issues associated with the pipeline of talent available to meet NASA's mission needs. Efforts must be made to understand the needs of the Agency, evaluate the application of NASA's education programs to meet these needs, and help ensure a source of competencies needed to assure future mission success. The following plan implements activities to address this problem.

Activities	Deadline (Date, quarter, etc.)	Metrics
Pilot test a longitudinal data-collection system. Develop a standard student/educator profile/feedback form, to be completed by all participants in NASA-wide education "pipeline" programs.	June 30, 2002	Data collected from summer 2002 program participants.
*Establish a NASA education program linkage system that tracks students in NASA education programs in order to link students in these programs to NASA hiring efforts for future workforce needs.	September 2002	System prototype established.
Evaluate effectiveness of longitudinal database system and analyze data with respect to the NASA Competency Management System.	September 2002	Milestone completed.
Based on analysis of data collected from pilot, and after consultation with Agencywide HR and Education personnel, revise longitudinal data requirements and collection system as needed.	December 2002	Data requirements identified and refined.
Implement longitudinal data collection system.	May 2003	Completed.
Agency HR provides projections of work force needs (3-5 year projections by Center) so information can be incorporated into	September 2003	Information is incorporated into relevant FY 04 program.

education program announcements.		Announcements.
Develop standard follow-up system for students/educators participating in pipeline programs, linking to additional education and HR opportunities.	September 2003	Completed.

Outcomes/Results:

The Agency will more effectively be able to provide the workforce it needs to achieve mission success. In addition, the NASA education programs will be more effective and efficient in contributing to the development of a source of competencies the Agency requires.

* Indicates an item contained in the *Human Capital* section of the *NASA PMA Action Plan*, dated May 9, 2002, negotiated with OMB and OPM.

Pillar: Learning

Action Plan 5: Ensure training and development programs build needed competencies, including more effective incorporation of knowledge sharing and mentoring in the development of employees.

NASA's training and development programs have been designed to address competencies identified in a number of internally developed competency models. In Action Plan 3, NASA has undertaken the development of an Agencywide competency management system and training and development programs must be re-evaluated in the context of that more comprehensive set of competencies. NASA will undertake the development of an integrated development needs assessment as the first step in evaluating whether the current suite of training and development programs will meet the future competency requirements of the Agency.

While NASA has always recognized the importance of training and development and has funded a wide variety of courses and programs to enhance employees' technical proficiency and career development, external and internal reviews continue to cite NASA's failure to adequately address knowledge sharing and mentoring as a part of the project leadership process. Programs and processes must stimulate a climate of open sharing and continued learning and improvement. Mentoring and coaching are important components of employee and management development and are essential components of the project leadership process. Given that resources (both dollars and time) that can be dedicated to training and development are constrained, optimizing NASA's investment consistent with its mission and priorities – as well as maximizing the benefits to the employees – is also critical. This portion of the action plan is directly associated with improving the Agency's ability to incorporate knowledge sharing and mentoring into the operating environment of NASA and with assuring that NASA's training and development programs are aligned with strategic priorities.

Activities	Schedule	Metrics
Establish and conduct meeting of Project Leadership Development Program subject matter experts.	Fall 2002	Meeting conducted and information documented.
*Develop a project leadership knowledge sharing and mentoring plan including strategic areas of priority, identification of critical leaders and experts who can share knowledge and mentor future project leaders.	October 2002	Milestone completed.

*Begin pilot activities associated with project leadership knowledge sharing and mentoring.	October 2002	Milestone completed.
Expand identification of critical leaders and experts who can share knowledge and mentor future project leaders.	Winter 2003	Identification complete.
*Implement Agencywide program and products—driven by strategic needs—related to mentoring and transferring knowledge from critical project leader experts to mentor future leaders.	October 2003	Number of programs and products implemented.
*Implement a training and education program that is aligned with strategic priorities based upon training needs.	October 2003	Completion of training needs assessment and alignment of programs with strategic priorities.
Evaluate effectiveness of the training and development programs.	On-going	Trend analysis.

Outcomes/Results:

- Agency will be better able to ensure that the cultural norm is that employees broaden their experience and skill base as part of career advancement at NASA.
- NASA will be able to align its programs with strategic priorities to optimize its investment in training and development to support the mission.
- Project leadership will be strengthened as knowledge sharing and mentoring of employees become a larger development component of NASA's future project managers.

Ultimately, better performance of the workforce and a resultant higher mission success rate are major outcomes of implementing this action plan.

** Indicates an item contained in the Human Capital section of the NASA PMA Action Plan, dated May 9, 2002, negotiated with OMB and OPM.*

Pillar: Learning

Action Plan 6: Capture knowledge and lessons learned (from failures and successes) in a more effective, systematic way.

NASA, through external as well as internal reviews, has identified a need to do a more effective and efficient job of capturing and sharing knowledge from the lessons learned associated with successes and failures. The action plan specifically focuses on improving the NASA lessons learned process.

Activities	Schedule	Metrics
Through the NASA Technical Standards Program in the Chief Engineer's Office, Lessons Learned are being linked to web-based technical standards on NASA's "Preferred Technical Standards" list at http://standards.nasa.gov because these standards are the guidelines and tools engineers use in defining and executing programs and projects. Accessing standards through the Preferred Technical Standards list makes Lessons Learned available to technical professionals when they need them and in an appropriate context for application.	On-going	To date, 176 entries from the Lessons Learned Information System have been linked to 72 NASA Preferred Technical Standards.
Enhance NASA lessons learned information system (enhanced search, problem solving, open software code, customizable, standard template, push capability, etc.)	December 2003	Phased implementation – Completion.
Establish/enforce Program/Project Managers requirement to utilize (populate and search) the NASA lessons learned system. Include in independent review criteria.	On-going	Trend analysis.
Link the Agency's numerous databases to Lessons Learned Information System (LLIS).	December 2003	Phased implementation – Completion.
Through the Office of the Chief Information Officer's portal and Knowledge Management efforts, the planned "inside NASA" portal for NASA employees will be linked to the LLIS system, enabling employees to leverage knowledge and lessons learned.	December 2003	Milestone completed.

Outcomes/Results:

The ultimate desired outcome is a culture where lessons learned from failures and best practices from successes (both internal and from similar external organizations) are captured and shared – leading to greater mission success.

* *Indicates an item contained in the Human Capital section of the NASA PMA Action Plan, dated May 9, 2002, negotiated with OMB and OPM.*

Pillar: Performance Culture

- Action Plan 7:** **Assure the Agencywide performance management system focuses on accountability for results.**
- Assure that employee rewards and recognition programs are adequately linked to performance that contributes to achievement of Agency goals.**

Fostering an inclusive climate and a feeling among the employees that what they do is relevant and fulfilling is vital to mission success. NASA's environment and systems can be more effective in contributing to the inclusive climate and feelings of empowerment in making fulfilling contributions. The pure excitement of NASA's mission should be leveraged to the fullest extent. Currently, performance expectations are often ambiguous and there is a perception that the Agency fails to deal adequately with poor performance. In addition, the Agency cannot overemphasize the importance of equal opportunity, diversity, and inclusiveness. The true promotion of EO principles is essential. The Agency should always strive for improvement and must make NASA relevant to underrepresented groups. This action plan addresses fair and equitable use of performance management, rewards, and recognition systems of the Agency to firmly establish the linkage between the employee and individual and organizational improvement.

Activities	Schedule	Metrics
Conduct focus groups to gather employee and management feedback on current awards and recognition practices.	August 2002	Milestone completed.
Benchmark 6 private sector companies' best practices for linking recognition to organizational strategic objectives and values.	July 2002	Milestone completed.
Compare results of 2002 OPM Governmentwide Survey on Human Capital with 1995 & 2000 Governmentwide survey results to assess how well employees understand how their work relates to the Agency's missions and goals.	September 2002	Assess effectiveness of communication and employees' understanding of how their individual performance is linked to organizational success by end of FY04.

*Agency will assess the current state of linkage using the OPM survey.	December 2002	NASA assessment of OPM survey results complete.
Develop implementation plan to support recommendations of Aligning Recognition and Awards with the Agency's Values and Expectations Study Report.	January 2003	Plan developed.
*NASA will verify or where FY2002 assessment results indicate its absence-establish a linkage between employee rewards, recognition, and performance and Agency key goals.	May 2003	Trend analysis.

Outcomes/Results:

- The Agency will clearly differentiate between high and low performers through appropriate incentives, rewards, and the performance management system.
- Personal and organizational performance will improve and mission success will be enhanced through more effective use of the diverse talents/abilities of the entire workforce.

* Indicates an item contained in the Human Capital section of the NASA PMA Action Plan, dated May 9, 2002, negotiated with OMB and OPM.

Pillar: Leadership

Action Plan 8: Ensure that an integrated, strategic training and development program builds needed Agency leadership competencies.

The Leadership pillar is considered the foundation pillar for all the others. The strategy of providing leadership training and development opportunities to nurture current and future NASA leaders is a strong area of focus. There is a lack of an integrated, strategic approach to leadership development and, as a result, we do not fully benefit from insights and experience of existing leaders when developing future leaders. In addition, there are limitations to the Agency's ability to recruit and retain a diverse cadre of high performing leaders. This action plan includes the evaluation and enhancement of the Agencywide leadership development effort, including the concepts of mentoring, coaching, succession planning and developing leaders who are accountable. Accountability across the Agency for performance toward NASA's vision, mission and goals is paramount. The success of this plan relies on accountability at all leadership levels including SES and, therefore, the activities associated with this pillar include leadership assessment. Further, the characteristics of our leaders form the foundation for successful performance and will be evaluated as well. In order to ensure that NASA's leaders (at all levels including SES) have a shared understanding of Agency goals, objectives, processes, methods, concepts, and values, emphasis should be placed on development and implementation of a standardized leadership/management curriculum, including mentoring and coaching for both current and future leaders.

Activities	Schedule	Metrics
*Create an Agencywide mentoring/coaching/mobility/rotation review and implementation team.	May 2002	Team established.
Develop a guide to include a strategy, structure and common language for using and developing coaching and mentoring skills.	December 2002	Guide developed.
*Conduct/complete study to evaluate need for expanded mobility and rotational assignments to expand knowledge and experience of the workforce.	December 2002	Study complete.
Revalidate NASA leadership competencies and provide guidance to Centers on competencies essential to effective NASA leadership.	Winter 2002	Revalidation complete.
Develop an assessment process to evaluate the impact of NASA's coaching and mentoring investment annually on improved mission performance and employee satisfaction.	March 2003	Assessment process developed.

Assess and develop Agency training programs aligned with NASA leadership competencies.	June 2003	Assessment complete.
*Evaluate results of mobility/rotation study and pilot/implement actions to expand development activities as indicated by study results.	October 2003	Evaluation complete.
Leadership corps serves as mentors and coaches and is involved in design, development, and conduct of activities for developing future leaders.	Winter 2003	SES involved annually in development activity.
Implement a training and education program aligned with strategic priorities based upon training needs.	October 2003	Agency level programs aligned.
Agency leadership corps ensures that candidates for long-term developmental programs (i.e., Fellowship, SESCDP, and rotational assignments) are selected based upon demonstration of leadership competencies.	Winter 2003 and ongoing	Center process in place for selection of candidates and participants.
Ensure that Centers align Center-specific leadership training in consonance with NASA leadership competencies.	2004	Programs and activities aligned.

Outcomes/Results:

- The Agency will have the right kind and number of diverse leaders to achieve mission success.
- There will be an integrated, strategic process in place to develop NASA leaders for future roles and assignments across the Agency.

* Indicates an item contained in the *Human Capital section of the NASA PMA Action Plan, dated May 9, 2002, negotiated with OMB and OPM.*

SECTION 5. MEASUREMENT AND ASSESSMENT

As described in the SHCP, measurement and assessment are essential in aiding the NASA leadership in managing the Agency's human capital, identifying areas for increased emphasis, and assessing whether existing activities and initiatives are producing the desired results. As the lead at NASA for the President's Management Agenda initiative for the Strategic Management of Human Capital, the Office of Human Resources and Education will have a key role in establishing human capital policy and program development; developing tools and flexibilities for Center use in recruiting, retaining, and developing the workforce; and measuring the outcomes and results associated with these activities across the Agency. These results will be reported back to management and Agency senior executives for the purposes of better understanding the effects of the human capital activities for which managers are being held accountable.

A key element to successful implementation of the SHCP is periodic assessment of Agency progress toward meeting the goals it has set for itself. This can best be achieved via a hierarchy of metrics. At the most basic level, a set of measures and/or an assessment process will be in place to provide insight into the overall "health" of an initiative, function (such as human resources programs and initiatives), or organization. In the case of the SHCIP, these would occur at the improvement initiative or project level. The next higher level will be a smaller set of measures that senior management requires to understand the current state, provide feedback, set goals and make course corrections. The highest level of metrics are those "critical few" that senior management and stakeholders care most about and will be reported to the Agency's executives for further evaluation and action, as appropriate. These latter metrics, their intent, methodology, and assessment criteria are discussed below.

Critical Metrics. Two critical metrics have been identified to help in assessing Agency progress toward achieving its human capital aims. The metrics, described below, can be very powerful in their application due to the fact that each covers a number of goals across a very broad spectrum in a measurable manner. They can also assist management in analyzing root causes of problems and issues.

- **Objective 1: Continuous progress in closing gaps in NASA's critical competencies.**

Metric 1: NASA will ensure, on an Agencywide basis, that it closes the gap between the critical competencies it has and those it needs.

Ex: Assume desired level of nanotechnology competency, either in terms of Full-Time Equivalents (FTE), Full-Time Permanents (FTP), or other unit is 100. Assume existing level of competency is 80. This represents a gap of 20 (20% in this case). Action is required to close the gap.

Source of Data: NASA Competency Management System

Method of Measurement: Total strategic competencies needed minus strategic competencies available divided by total strategic competencies (same measure for subset of critical strategic competencies).

Frequency of Measurement: Semi-annually

A crucial first step in the tracking of this metric is the establishment of a baseline for measurement. This is expected to occur no later than September 30, 2003. The ease with which the Agency is able to assess progress depends in large degree on how quickly NASA is able to put in place an Agencywide Competency Management System and the larger workforce planning and analysis capability, particularly implementation of the core HR module of the IFMP. A more detailed discussion of the phased development of the Agency workforce planning and analysis capability is contained in Action Plan 1 and in the President's Management Agenda Action Plan for the National Aeronautics and Space Administration¹.

- **Objective 2: Alignment of NASA's human capital strategy with its mission, goals, and organizational objectives.**

For this metric, a baseline must be set and further evaluation will be required. In light of the need to develop a baseline, the human capital survey administered by OPM will serve to establish the baseline. Additional surveys, where the OPM survey may not be complete for the Agency's needs, will be developed and implemented as required.

Metric: On an Agencywide basis, NASA achieves an overall satisfaction level based on survey responses received in the following areas:

- a) People have the resources they need to perform their job;
- b) The performance management system is effective in identifying poor performance and taking steps to improve performance;
- c) Awards and recognition programs incentivize and reward the behaviors the Agency wants to foster;
- d) The workforce has adequate opportunities for learning and improvement; and
- e) NASA fosters an environment of inclusiveness.

Source of Data: OPM employee survey and/or other surveys as necessary.

Method of Measurement: Assessment of responses received on relevant survey questions. Surveys either in addition to, or in lieu of, the OPM survey will be the method of measurement as required.

Frequency of Measurement: Annually

¹ The President's Management Agenda Action Plans for the National Aeronautics and Space Administration, May 2002.

As stated earlier, the results of these metrics will serve as guideposts for evaluation of the overall health of our human capital management effort and the metrics may be amended when, and as, necessary.

The above two metrics are intended to be integrated into the Agency annual budget and performance planning process. Responsibility for maintaining the metrics, providing tools and technologies to help managers and executives succeed in their human capital management efforts, and reporting progress to senior management will reside with the Headquarters Office of Human Resources and Education (Code F). As reflected in the Roles and Responsibilities table in Section 1, achieving results is the shared responsibility of all organizations at all levels, although ultimately Enterprise and Center managers are accountable for producing the desired human capital results.

These metrics cover directly or indirectly Agency progress in addressing all of the areas of concern expressed by internal and external parties regarding the workforce, including:

- Identifying and managing competencies needed to carry out the mission and eliminating gaps in mission critical competencies
- Succession planning
- Strategically using existing personnel tools, flexibilities, and technologies
- Differentiating between high and low performers through appropriate incentives and awards and merit-based human resources management
- Appropriate consideration of skill mix, technology, e-government and competitive sourcing

As such, these metrics and results will be monitored, assessed and reported to the Agency's senior executives, line managers, and employees as appropriate to help ensure accountability and improvement.

Appendix A

Current Activities and Initiatives

Strategic Alignment, Strategic Competencies: NASA Centers are re-establishing recruitment networks and rebuilding the once extensive Co-operative Education Program. In addition, NASA has designed Federal Career Intern Program (FCIP) plans (for recruiting individuals into developmental positions at the GS-5, 7, or 9 levels) that will enhance and provide a flexible and expeditious recruitment process. NASA Centers are also now able to begin repaying student loans to attract or retain employees. The Agency will continue to utilize these programs, the Presidential Management Intern Program, and other student employment programs as tools for entry-level hires.

NASA's automated Staffing and Recruitment System (NASA STARS), a pathfinder project under the Integrated Financial Management Program, was initiated in FY 2001. NASA STARS is a resume management process that uses a computer-assisted rating and referral system, simplifies and expedites hiring, allows applicants to apply on-line, and enables creation of a skills database. The project is now fully implemented and expects to meet or surpass its success criteria, which include significantly reducing hiring time, time expended on staffing functions, and response time to applicants. NASA STARS will enhance NASA's ability to attract and retain a world-class workforce in a highly competitive job market and allow human resources offices to operate with much greater efficiency.

The National Recruitment Initiative, completed in December 2001, focused on developing Agencywide recruitment strategies to attract and hire a highly technical S&E workforce, focusing on "freshouts" to counterbalance the aging of the workforce. Information gathered was used to develop recruitment enhancements. Recruitment tools identified in the study focus on the candidate instead of the hiring process; leverage partnerships and alliances with universities; and coordinate Agencywide recruitment opportunities and outcomes. Many of the tools cited in the study are now being developed/implemented.

NASA Centers utilize various hiring authorities that enable them to offer starting salaries above the minimum rate of a grade and can, when appropriate, offer recruitment bonuses. NASA has also used retention allowances, when appropriate, to retain needed talent. NASA's use of these incentives by the Centers has increased in the recent past – a trend the Agency expects to continue because of an increasingly competitive job market and high cost of living surrounding some NASA Centers.

The Agency continues to emphasize quality of work-life initiatives such as alternative work schedules, family-friendly leave programs, part-time employment and job sharing, telecommuting, dependent day care, and employee assistance programs.

Strategic Competencies, Learning, Leadership: The largest area of new FY 2001 investments in employee development went toward creating and implementing additional on-line capabilities in order to provide employees with desktop-based development

opportunities. Products included: the creation of 11 new on-line courses on NASA's Site for Online Learning and Resources (SOLAR), the development of an interactive Project Management simulation based on the first of the Faster, Better, Cheaper missions (Mars Pathfinder), and the initiation of an on-line journal (Academy Sharing Knowledge) which shares lessons in Project Management learned by NASA practitioners.

Additional resources have been devoted to the development of new engineering courses (Concurrent Design Exercises, Comprehensive Systems Skills Initiative, NASA Engineering Training (NET) Design Exercise, and Mastering Process Improvement). The NASA fellowship program was also redesigned to assure that programs more closely align with NASA strategic plans to further strategic objectives and to assure that development experiences are leveraged on re-entry into the workplace.

Further, NASA has updated its leadership model, which is linked to NASA's Strategic Plan and defines skill requirements for team leaders through senior executives, and has designed several new offerings. The new Global Leadership program provides an international perspective and skills for NASA management in an increasingly global environment. Partnerships with academia have been established to provide fellowships in leadership and project management development. These include a partnership with the Massachusetts Institute of Technology in Project Management and another with the University of Virginia Darden Business School to develop a Business Education Program.

Other long-term developmental processes are in place at both the Center and the Agency levels. These include the Senior Executive Service Candidate Development Program (SESCDP) and the Professional Development Program (PDP). The NASA SESCDP offers individuals a structured approach to preparing for recurring openings in the SES. Designed to meet NASA's projected needs and management values, the program provides a series of intensive developmental experiences for people who are judged to have high potential for assuming executive responsibilities. The PDP is designed to broaden the participants' knowledge and understanding of the Agency through a combination of expanded work experiences and formal training. Participants in this program identify a developmental work assignment away from their home Center. Benefits include learning new job skills, being exposed to new areas of NASA and senior NASA officials, and participating in a variety of developmental activities.

Strategic Competencies: The Agency has taken some preliminary steps to address the problem of a depleted "pipeline" of talent. Education programs must address the wide range of colleges, universities and other organizations that develop our Nation's next generation of scientists, engineers, mathematicians, and business leaders.

The Undergraduate Student Research Program is an Agencywide program designed to extend and strengthen NASA's commitment to educational excellence and university research, and to highlight the crucial need to increase the Nation's undergraduate and graduate science, engineering, mathematics, and technology skill bases. The pilot phase

began in FY 2001 with 107 students (55 male/52 female; 41 percent minority representation) representing 29 states plus Puerto Rico and 70 institutions.

APPENDIX B

Menu of Possible Human Capital Legislative Options

Enhancements to the Intergovernmental Personnel Act Mobility Program

- Authorizes NASA Administrator to approve IPA assignments for a period up to 6 years. (Currently, assignments are limited to a total of 4 years).
- Requires IPA detailees to submit the same financial disclosure reports required of NASA civil servants in equivalent positions.
- *Benefits:* Although the need for an assignment beyond 4 years would be rare, there may be instances in which a participant's involvement in a complex program or project beyond 4 years would be desirable. Requiring financial disclosure reports will help the Agency avoid conflict of interest situations.

NASA/Industry Exchange Program

- Establishes authority to assign personnel between NASA and the private sector under provisions similar to the current Intergovernmental Personnel Act program (The current IPA authority excludes profit-making private sector enterprises from participating in such assignments.).
- Provisions are modeled after the IPA authority.
- Private sector employees are required to file financial disclosure reports regardless of the position to which detailed/appointed.
- *Benefits:* Such assignments expand the knowledge base of participants, infuse participating entities with new ideas and perspectives; improve technology transfer, sustain lines of communication between NASA and industry.

Establishment of a NASA Science and Technology Scholarship Program

- Allows NASA to provide scholarships to undergraduate or graduate students in exchange for a year-for-year service requirement upon graduation.
- Scholarships are limited to U.S. citizens who are full-time students in an academic program leading to a degree in a discipline area needed by NASA. Federal employees are excluded from eligibility. Scholarships may not be received for more than 4 academic years.
- Graduates are appointed under a Schedule A excepted service authority that cannot exceed 4 years.
- *Benefits:* Provides an incentive for students to pursue careers in disciplines needed by NASA; enables NASA to compete with the private sector and other Federal agencies for science and engineering talent; provides a source of candidates to replenish the anticipated attrition NASA faces over the next five years as a significant percentage of the workforce reaches retirement eligibility.

Expanded Use of Term Appointments

- Permits term appointments for up to 6 years (rather than 4), which is better suited for an Agency with R&D projects of extended duration.
- Permits non-competitive conversion of a term employee to a permanent position within the competitive service under specific conditions (e.g., the original recruitment notice must have indicated the potential for conversion to permanent).
- *Benefits:* Avoids the unnecessary work and time involved in conducting duplicative competitive recruitment processes; the possibility of conversion to permanent, when announced at initial recruitment, may attract more high quality applicants; appointments of 6-year duration are better suited for the nature of programs/projects within NASA.

Recruitment and Relocation Bonus

- Permits NASA to pay recruitment or relocation bonuses up to 50% of the annual adjusted rate of basic pay, including a locality payment (existing statute limits such payments to 25% of basic pay, excluding locality).
- Bonuses may be paid in a lump sum or in installments, or a combination.
- Payment of this benefit is at the option of the Agency.
- *Benefits:* Significant recruitment incentive; allows NASA to compete more successfully with the private sector for scarce talent.

Retention Bonus

- Permits NASA to pay retention bonus up to 50% of the annual adjusted rate of basic pay, including locality payment (existing statute limits retention allowance to 25% of basic pay, excluding locality pay).
- Bonus may be paid to an Agency employee who is likely to leave to accept a position in another Federal agency if employee has mission-critical skills.
- Bonus may be paid in a lump sum, installments, or a combination.
- Payment of this benefit is at the option of the Agency.
- *Benefits:* Significant recruitment incentive; allows NASA to compete more successfully with the private sector for scarce talent.

Critical Pay Authority

- Delegates authority to Administrator to fix pay for critical positions (General Schedule (GS), Senior Executive Service (SES), Scientific and Technical (ST), Senior Level (SL), NASA Excepted Service (NEX), or expert/consultant) at a level equivalent to that of the Vice-President.
- Up to 10 employees may be paid under this authority at any time.

- Authority expires after 10 years.
- Authority limited to instances in which a position requires an extremely high level of expertise in a scientific, technical, professional, or administrative field; the position is mission-critical; and the critical pay is needed to recruit or retain an exceptionally well-qualified individual.
- *Benefits:* Allows NASA to attract world-class individuals to critical positions.

Streamlined Demonstration Project Authority

- Authorizes NASA to request and implement a demonstration project, subject to OPM approval, following a streamlined process.
- No limitation on the number of employees that would be covered by project.
- No requirement for public hearing; shortens advance notification requirement from 180 days to 30 days; requires 1, rather than 2, Federal Register Notices
- No changes to current requirements pertaining to union consultation or list of provisions that cannot be waived under a demonstration project.
- Establishes a streamlined process to convert a successful demonstration project to an Alternative Personnel System.
- *Benefit:* Provides NASA with a means of implementing and testing new human resources flexibilities that eliminates the current cumbersome and lengthy approval/implementation processes.

Temporary SES Appointment and Bonus Authority

- Permits limited term SES appointment to career reserved positions, for up to 10% of NASA's SES allocation.
- Appointments may be up to 4 years (with 2-year extension) for temporary duties and up to 12 months (with one 12-month extension) for duties that are continuing.
- OPM approval not required if appointing a NASA career or career conditional employee to the position.
- Extends eligibility for bonuses to limited term appointees, but not rank awards.
- *Benefits:* Simplifies the SES limited appointment authority to better meet short-term staffing needs. Permits limited term appointees to be rewarded in the same fashion as career SES employees.

Distinguished Scholar Appointment Authority

- Provides an appointment authority for professional and scientific positions with a positive education requirement, at grades GS-7 through GS-12, similar to the concept of the Outstanding Scholar authority, in which advanced-

degreed graduates who met specified academic criteria may be appointed directly to scientific and technical positions.

- Public notice is required, and veterans preference applies.
- Traditional rating/ranking methodologies favor individuals with experience as opposed to individuals who have impressive academic accomplishments; this appointment authority offsets that bias.
- *Benefits:* Streamlines the recruitment process and enables management to target recruitment toward advanced-degree candidates who lack work experience.

Travel, Transportation, and Relocation Expenses for New Hires

- Permits NASA to extend the same travel, transportation, and relocation benefits to new appointees and reinstatement eligibles as are accorded to current Government employees who relocate.
- Payment of this benefit is at the option of the Agency.
- *Benefits:* Significant recruitment incentive; allows NASA to compete more successfully with the private sector for scarce talent.

Excepted Service Hiring Authority for Aerospace Technology Positions

- Establishes Excepted Service appointment authority for core Aerospace Technology positions at grades GS-11 through GS-15.
- Recruitment process follows OPM's hiring and selection rules for excepted service positions; veterans preference rules still apply.
- Selectees serve under a Schedule A appointing authority; after 2 years of successful performance they are eligible for conversion to career, career-conditional, or term appointment. If not converted within 120 days after completing the 2-year appointment, they are terminated.
- *Benefits:* Streamlines the hiring process for core engineering and scientist positions since recruitment may be targeted, public notice is not required, and rating process is more flexible than the normal competitive examining process.

Simplified Candidate Evaluation

- In connection with delegated examining recruitment, revises the concept of "rule of three" to "rule of 15" (or alternative concept, depending on the position to be filled as recommended by Merit Systems Protection Board).
- In the event that all candidates within the prescribed number are preference eligibles or none have preference, all may be referred for selection without further rating and ranking.
- *Benefits:* Provides greater choices to managers in making selections since they are not limited to three choices; reduces workload associated with evaluating job applicants; allows for more expeditious job offers to be made since the rating process is less burdensome.

Targeted Areas of Consideration

- Permits the area of consideration for competitive announcements to be limited to an area less than nationwide if there is evidence that an adequate pool of well-qualified candidates is available within the specified region.
- This recognizes the fact that it is unrealistic to expect managers to interview and/or pay relocation expenses for geographically dispersed applicants if there are sufficient well-qualified individuals in the local area. Announcing such positions “nationwide” is an unnecessary burden and gives false hope to many applicants.
- *Benefits:* Allows recruitment efforts to target the appropriate labor markets; for positions that are not hard-to-fill.

Housing Allowance

- Authorizes payment of housing allowances to newly hired employees to offset the cost of local housing when certain conditions are met.
- Such payments are authorized when the median cost of housing in the local commuting area exceeds the national average by 25% or more and a determination is made that without such an allowance, the agency will have difficulty in filling the position.
- The allowance may be paid for up to 12 months following appointment and may not exceed 10% of the employees’ basic pay or 25% of the basic rental/mortgage payment (whichever is less).
- *Benefits:* Significant recruitment incentive for Centers located in high-cost areas; allows NASA to compete with the private sector in those areas.

Broad-banding

- Establishes a broad banding structure to reduce the 15 General Schedule grade levels, Senior Level, and Scientific & Technical pay levels into several pay bands within separate career paths.
- The career paths correspond to broad occupational categories (scientific/engineering; administrative, technical, general support).
- Career progression between the pay levels occurs by promotion, but pay progression within levels – which comprise multiple GS grades – occurs through incentive pay.
- *Benefits:* The current General Schedule classification system of 15 grades and 10 levels within each grade is cumbersome. A broad-banding system provides pay setting flexibilities and allows exceptional employees to advance in pay as a result of performance excellence.

Superior Qualifications Pay Authority

- Step toward pay-banding – flexibility in setting pay based on qualifications.

- Based on advanced-in-hire/superior qualifications appointment authority.
- Using same criteria (qualifications, difficulty in filling job), set pay on internal placement actions, i.e., reassignments, promotions, and change to lower grade
- Up to 2 steps above what otherwise allowed.
- Limits:
 - Not more than once in 3 years
 - Considering: limit to 1 extra step for promotion
 - Plan to OPM for approval
- *Benefit:* Expands the concept of a superior qualifications appointment so that NASA can provide an appropriate incentive to attract exceptional candidates to the Agency or to move a NASA employee to another position for which the individual has superior qualifications or the Agency has a special need.

Enhanced Annual Leave for New Hires

- Enhances annual leave accrual and credit for new hires by crediting work experience in the private sector as Federal service, provided the work was directly related to the job for which hired.
- Benefit is restricted to newly appointed employees (including reinstatements) and conversions from certain temporary and student appointments.
- SES/ST/S will accrue annual leave at 8 hours per pay period.
- *Benefit:* This would allow NASA to offer mid- and senior-level career employees with a more generous annual leave benefit that is commensurate with a leave benefit to which they have been accustomed. Benefit is competitive with what the private sector may offer individuals at that level.

Portability of Benefits

- Establishes provisions to minimize the adverse effects that privatization may have on NASA civil servants affected by the transfer of government work to the private sector.
- The special benefits provisions will apply not only to employees directly affected by the transfer, but those who volunteer to transfer in place of the directly-affected employee.
- Employees will be permitted to
 - Retain existing retirement/TSP/FEHB/FEGLI coverage or transfer to the new employer's plans;
 - If retaining CSRS/FERS, transferred employee will be credited with accumulated sick leave
 - Be reimbursed for travel, transportation, relocation costs
- *Benefits:* Provides maximum "soft landing" to affected NASA employees; facilitates success of a Non-Government Organization (NGO), for example, by making it worthwhile for the NASA employee to transfer; minimizes adverse effect on NASA civil servants by allowing for a non-affected employee to "swap" places with an affected employee.

Payment of Retraining Expenses for Employees Involuntarily Separated

- Authorizes NASA to approve retraining incentive payments to private sector employers to encourage those employers to hire, train, and retain NASA employees involuntarily separated by reduction in force or failure to relocate in connection with a transfer of function.
- Limited to NASA employees serving on appointments without time limitation and who are not reemployed annuitants.
- Authorizes a retraining incentive payment to an employer who employs the former NASA employee for a continuous period of no less than one year at a salary mutually agreeable to the employer and the displaced employee.
- The amount of the incentive shall be the lesser of (1) the amount equal to the cost incurred by the employer for any necessary training or (2) \$10,000.
- *Benefits:* Provides a means to minimize the adverse affects of involuntary separations.

Authority to Approve Waiver of Reduction of Annuity when Reemploying Civil Servants

- Grants the Administrator the authority to waive the salary offset when reemploying a civil service annuitant (currently, OPM retains the authority to approve requests for waivers).
- Guidelines for implementing this authority must be established.
- *Benefits:* This will address, to some degree, the significant loss of institutional knowledge NASA suffered over the prolonged period of downsizing. Retirees with critical knowledge and skills may be enticed to return to the Agency for short periods to continue mission-critical work and to mentor new employees.

Authority to Extend Buyout

- Grants the Administrator the authority to provide buyouts for restructuring purposes (with no link to FTE reduction).
- Authorizes Administrator to increase buyout amount to 50% of employee's salary for critical restructuring needs, based on criteria specified in Agency plan. Limited to 10 per year. Plan must be approved by OMB.
- *Benefits:* Provides a means to minimize the adverse affects of involuntary separations.

